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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of :  
Srinivasa Sesha Soma Sekhar Muppidi et al. : Examiner: David J. Lee  
Serial No. : 10/071,951 : Group Art Unit: 2633  
Filed: February 6, 2002 :  
For: SYSTEM AND METHOD FOR :  
CONFIGURATION DISCOVERY IN AN :  
OPTICAL NETWORK :

**REPLY BRIEF OF APPELLANT**

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### **I. Response to Examiner's Answer regarding Claim 1**

The reference of deVette fails to teach or suggest the step wherein **each node** of a plurality of optical nodes determining a network configuration having a topological map of network links corresponding to the discovered neighboring nodes. As deVette states in col. 22, lines 39-45:

It will be appreciated by those skilled in the art that the foregoing embodiment will provide topology and connectivity data regarding the network 100 to the CNM 123, but on a theoretical basis only. Each node connectivity report 610 generated by a node 230 reflects only what topology and connectivity data has been reported to it by upstream nodes 293, 294.

In Claim 1 each node maps the network:

each node publishing at least one neighboring node to the network;  
*and each node of said plurality of optical nodes determining a network configuration having a topological map of network links* corresponding to the discovered neighboring optical node.

In deVette, the individual nodes do not map the network, it is the central network monitor (CNM) that maps the network. The citation in the examiner's answer to col. 4, lines 37 to 43 of deVette omits a clarifying portion of the paragraph. A careful reading of the entire paragraph in col. 4, beginning at line 31 reveals that it is the network that contains a mapping processor, not an individual node.

Furthermore, deVette distinguishes between node "configuration" and mapping. deVette describes "configuration signal processors" and "mapping processors" separately in the above-cited passage. The nodes of deVette do not contain mapping processors, these are located at the CNM.

The advantage to the claimed method is that since each node includes a network configuration, configuration errors that would normally occur during set-up, repair, upgrading or operation of the optical network can be discovered at the node or at the adjacent node and the discovered information may be analyzed at any portion of the network rather than only at the CNM as required by deVette. Further, deVette does not teach two-way communication between nodes and this is the reason for the necessity of the CNM. deVette repeatedly describes transferring a signal only in the downstream direction to the CNM so that the CNM can use the data to direct its operations, analysis and maintenance functions. Appellant's invention on the other hand allows two-way communication between nodes which allows a single node to acquire a map of the topography of the entire network, thus avoiding the necessity of a CNM to perform the mapping function.

Thus, deVette does not anticipate Claim 1 as the required teachings are simply not contained within the disclosure of deVette.

**A. Response to Examiner's Answer regarding Claims 2 and 4-16**

The rejection of Claims 2 and 4-16 is in error due in part to the failure of deVette teach that "each node of said plurality of optical nodes determining a network configuration having a topological map of network links corresponding to the discovered neighboring optical nodes" as required by Claim 1. Since each node of deVette does not

contain the topological map as explained above with respect to Claim 1, deVette does not teach generating an alarm based on that configuration information or correlate information from *each* node to isolate a location. The reasoning in the Examiner's Answer substitutes the disclosure regarding the functions of the central network monitor (CNM) of deVette for the missing aspects of the claimed nodes of the invention. A principle advantage of the claimed invention is to avoid complete reliance on a central network monitor, contrary to the teaching of deVette.

## **II. Response to Examiner's Answer regarding Claim 20**

deVette fails to teach the requirements of Claim 20 for the reasons previously set forth in Appellant's Appeal brief. deVette does not disclose a node creating a topological map of the network as noted with respect to Claim 1.

Furthermore, Appellant disagrees with the contention that "at least one" encompasses the term "each" as used in the claim. Each node means all of the nodes or both nodes in a two node network, not "at least one". deVette teaches a one-way signal and does not teach sharing of information between two nodes. Therefore, the use of "at least one" in deVette is not the same as "each" as used in Claim 20.

### **A. Response to Examiner's Answer regarding Claims 21-28**

deVette fails to teach the requirements of Claims 21-28 for the reasons previously set forth in Appellant's Appeal brief.

## **III. Response to Examiner's Answer regarding Claim 29**

What deVette does not disclose is an exchange of information between neighboring nodes. deVette only describes a transfer in the downstream direction. Exchange requires reciprocation. The rejection of claim 29 should be reversed.

**A. Response to Examiner's Answer regarding Claims 30-35**

deVette fails to teach the requirements of Claims 30-35 for the reasons previously set forth in Appellant's Appeal brief.

**IV. Response to Examiner's Answer regarding Claims 36 and 40**

The patent of deVette distinguishes between a node and the CNM. Node 101 and the CNM 123 are separate parts of the WDM network. It is clear that no single node disclosed in deVette includes all of the requirements of Claim 36 or Claim 40.

**A. Response to Examiner's Answer regarding Claims 37-39 and 41-50**

deVette fails to teach the requirements of Claims 37-39 and 41-50 for the reasons previously set forth in Appellant's Appeal brief.

**V. Response to Examiner's Answer regarding Claims 51 and 54**

Neither the Examiner's Answer nor the Final rejection provides a reasonable basis for combining the bidirectional signal transfer teaching of Elliot with the reference of deVette. It is impermissible to use the claimed invention as a blueprint from which to reconstruct the prior art to satisfy the claimed invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 227 USPQ 543, 548 (Fed. Cir. 1985) ("From its discussion of the prior art it appears to us that the court, guided by the defendants, treated each reference as teaching *one* or more of the specific components for use in the Feil system, although the Feil system did not then exist. Thus the court reconstructed the Feil system, using the blueprint of the Feil claims. As is well established, this is legal error.") The prior art must be considered as a whole and suggest the desirability and thus the obviousness of making the combination. *Lindermann Maschinefabrik GmbH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984) *There must be a*

*suggestion or motivation in the prior art to modify a reference to satisfy the claimed invention. In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984). "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." Id. (emphasis added)*

Not only is there no teaching of the desirability of the combination, deVette teaches away from the combination when he describes his invention as having a signal travelling in a single direction. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path taken by the applicant... [ or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by applicant." In re Gurley, 27 F. 3d 551, 553, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994). Therefore, one of ordinary skill in the art upon reviewing the disclosure of deVette would be led away from a combination with the teachings of Elliot.

**A. Response to Examiner's Answer regarding Claims 52 and 53**

deVette fails to teach the requirements of Claims 52 and 53 for the reasons previously set forth in Appellant's Appeal brief.

**VI. CONCLUSION**

When evaluated under the controlling legal standards, the Examiner's rejections of of Claims 1, 2, 4-16 and 20-54 cannot be sustained. Hence, Appellant respectfully requests that all grounds of rejection be reversed.

A check in the amount of \$1,000.00 is attached hereto to satisfy the government fee for filing the attached request for oral hearing. It is believed that no additional fees

are due. However, should that determination be incorrect, the Commissioner is hereby authorized to charge any deficiencies to Deposit Account No. 50-0562 and notify the undersigned in due course.

Respectfully submitted,

Date: March 8, 2007

A handwritten signature in black ink, appearing to read 'David H. Voorhees', written over a horizontal line.

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